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(71) Applicant (for all designated States except US): **SAM-SUNG ELECTRONICS CO., LTD.** [KR/KR]; 416, Maetan-dong, Yeongtong-gu, Suwon-si, 442-742 Gyeonggi-do (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHOI, Pil-Mo** [KR/KR]; 103, #1651-3, Bongcheon11-dong, Gwanak-gu,

151-850 Seoul (KR). **YI, Chung** [KR/KR]; 315-702 Ssangyong Apt., Sangha-ri, Guseong-myeon, Yongin-si, Gyeonggi-do 449-914 (KR). **KIM, Deok-Hoi** [KR/KR]; 407-303 Sindonga Apt., #105, Sadang-dong, Dongjak-gu, 156-090 Seoul (KR). **JUNG, Kwan-Wook** [KR/KR]; 911-1502 Jugong Apt., Byeokjeokgol, Yeongtong-dong, Paldal-gu, Suwon-si, 442-470 Gyeonggi-do (KR).

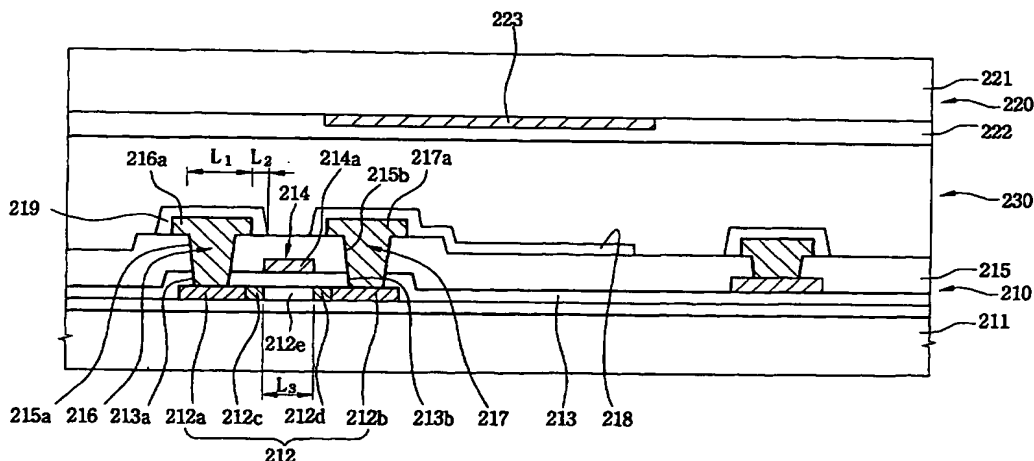
(74) Agent: **PARK, Young-Woo**; 5F., Seil Building, #727-13,, Yoksam-dong, Gangnam-gu, Seoul 135-921 (KR).

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[Continued on next page]

(54) Title: DISPLAY PIXEL, DISPLAY APPARATUS HAVING AN IMAGE PIXEL AND METHOD OF MANUFACTURING DISPLAY DEVICE



(57) Abstract: In a pixel for displays capable of simplifying manufacturing process, a display apparatus having a simplified pixel structure and a method of manufacturing a cost competitive display device, a display pixel includes a channel layer (212), first to third (214, 216, 217) signal lines, first (213) and second (215) insulating layers and a pixel electrode (218). The first signal line (214) is formed on the first insulating layer (213). The first insulating layer (213) insulates the channel layer (212) from the first signal line. The second insulating layer (215) insulates the first signal line (214) from the second (216) and third signal lines (217), and includes contact holes (213a, 213b). The second and third signal lines (216, 217) are connected to the channel layer (212) through the contact holes (213a, 213b). The pixel electrode (218) including indium zinc oxide (izo) is formed on the identical layer with the first (214) and second signal (216) lines, and disposed on the second insulating layer (215). Therefore, manufacturing process is simplified and manufacturing time is reduced.



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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁷: G02F, G09G, H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, PAJ, WPI, English Fulltext

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5341012 (MISAWA, OSHIMA) 23 August 1994 (23.08.1994) <i>fig. 3B, fig. 4A-D, and description page 6, line 35 - page 9, line 7.</i>	1,2,6
Y	<i>esp. fig. 3B.</i>	13-27
A	<i>the whole document.</i>	1-27
X	US 2002 125477 A (WOO YOUNG et al.) 12 September 2002 (12.09.2002) <i>the abstract, description, fig. 2A-E, claims 1-18.</i>	1-12
Y	<i>the whole document.</i>	13-27
X	US 2002 158995 A (CHANG-WON et al.) 31 October 2002 (31.10.2002) <i>abstract, description, fig. 5A-E, claims 9,14-16,20,23.</i>	1-12
Y	<i>the whole document.</i>	13-27
X	JP 08 160464 (SANYO ELECTRIC CO) 21 June 1996 (21.06.1996) <i>abstract, fig. 3-8.</i>	3,4

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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WALTER P.

Telephone No. 1/53424/569

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 11 153812 (SHARP KK) 8 June 1999 (08.06.1999) <i>the whole document, esp. abstract and fig. 2.</i>	1-12
A	<i>the whole document.</i>	13-27
X,P	US 2003 122196 A (HAN-WOOK) 3 July 2003 (03.07.2003) <i>the whole document.</i>	1,3-11
A	<i>the whole document.</i>	2,12-27
X	US 5744824 (KOUSAI et al.) 28 April 1998 (28.04.1998) <i>the whole document esp. fig. 3A-G.</i>	1,2,5-10,12
X	US 5569610 (TAKEMURA et al.) 29 October 1996 (29.10.1996) <i>the whole document, esp. fig. 4A-E.</i>	1-12

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Information on patent family members

International application No.

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